

What is claimed is:

1. A method for treating a subject afflicted with a proliferative disorder comprising administering to the subject a therapeutically effective amount of an agent which inhibits the expression of p46 Shc and/or p52 Shc in the subject.
2. A method for treating a subject afflicted with a proliferative disorder comprising administering to the subject a therapeutically effective amount of an agent which inhibits the activity of p46 Shc and/or p52 Shc in the subject.
3. A method for treating a subject afflicted with a proliferative disorder comprising administering to the subject a therapeutically effective amount of an agent which increases the level of phosphorylated p66 Shc in the subject.
4. A method for inhibiting the expression of p46 Shc and/or p52 Shc in a cell comprising delivering to the cell an agent that inhibits the expression of p46 Shc and/or p52 Shc in the cell.
5. A method for inhibiting the activity of p46 Shc and/or p52 Shc in a cell comprising delivering to the cell an agent that inhibits the activity of p46 Shc and/or p52 Shc in the cell.
6. A method for increasing the level of phosphorylated p66 Shc in a cell comprising delivering to the cell an agent which increases the level of phosphorylated p66 Shc in the cell.

7. The method of claim 1 or 4, wherein the agent is selected from the group consisting siRNA, a ribozyme, or a DNAzyme.
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8. The method of claim 3 or 6, wherein the agent specifically inhibits the dephosphorylation of the Ser³⁶ residue of phosphorylated p66 Shc in the subject.
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9. The method of claim 3 or 6, wherein the agent is a p66 Shc-encoding expression vector.
10. The method of claim 1, 2 or 3, wherein the subject is human.
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11. The method of claim 1, 2 or 3, wherein the proliferative disease is prostate cancer, ovarian cancer or breast cancer.
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12. The method of claim 4, 5, or 6, wherein the cell is a prostate cancer cell, an ovarian cancer cell or a breast cancer cell.
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13. A method for determining whether an agent inhibits the phosphorylation of p46 Shc or p52 Shc comprising:
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- (a) contacting p46 Shc or p52 Shc with the agent under conditions which, in the absence of the agent, would permit phosphorylation thereof;
- (b) determining the degree to which the p46 Shc or p52 Shc has been phosphorylated; and

- 5 (c) comparing the degree of phosphorylation measured in step (b) with the degree of phosphorylation measured in the absence of the agent, a greater degree of phosphorylation in the absence of the agent indicating that the agent inhibits phosphorylation of the p46 or p52 Shc.
- 10 14. A method for determining whether an agent inhibits the dephosphorylation of p66 Shc comprising:
- 15 (a) contacting phosphorylated p66 Shc with the agent under conditions which, in the absence of the agent, would permit dephosphorylation thereof;
- 20 (b) determining the degree to which the p66 Shc has been dephosphorylated; and
- 25 (c) comparing the degree of dephosphorylation measured in step (b) with the degree of dephosphorylation measured in the absence of the agent, a greater degree of dephosphorylation in the absence of the agent indicating that the agent inhibits dephosphorylation of the p66 Shc.
- 30 15. A method for determining whether an agent inhibits the binding of a Shc A protein with a protein to which the Shc A protein must bind in a cell in order to carry out its proliferative function comprising:

- 5 (a) contacting (i) the protein to which Shc A binds, or a Shc A-binding portion thereof, with (ii) Shc A or a suitable portion thereof, in the presence of the agent under conditions which, in the absence of the agent, permit binding;
- (b) determining the degree of binding; and
- 10 (c) comparing the degree of binding measured in step (b) with the degree of binding measured in the absence of the agent, a greater degree of binding in the absence of the agent indicating that the agent inhibits the
- 15 binding between the Shc A protein and the protein to which it must bind in a cell.
16. An article of manufacture comprising (a) a packaging material having therein an agent which
- 20 inhibits the expression of p46 Shc and/or p52 Shc in a subject; and (b) a label indicating a use for the agent in treating a proliferative disorder in a subject.
- 25 17. An article of manufacture comprising (a) a packaging material having therein an agent which inhibits the activity of p46 Shc and/or p52 Shc in a subject; and (b) a label indicating a use for the agent in treating a proliferative disorder in
- 30 a subject.
18. An article of manufacture comprising (a) a packaging material having therein an agent which increases the level of phosphorylated p66 Shc in a

subject; and (b) a label indicating a use for the agent in treating a proliferative disorder in a subject.